

B. Specification

Please amend the paragraph at page 37, lines 4-26, as follows:

--The concept of the term "microcapsule" as used herein completely includes a concept₁ which the term generally has in a drug delivery system (DDS) and high polymer chemistry, but the concept is not always identical. The modes of scanning an electron microscopic form of a "microcapsule" used in the claims and in the specification of the present application include a mode having many protrusions like raspberry or confetti (konpeito, confeito in ~~Portugeese~~ Portuguese), a flat mode like an erythrocyte, a spheroidal mode like a rugby ball, a spindle-shaped mode like Escherichia coli. The "microcapsule" referred to herein usually has characteristics of microspheres that constitute, for example, a polymer emulsion, a latex, and a polymer suspension. As described above, although the term "microcapsule" as used in the claims and the specification of the present application is not always identical ~~[[with]]~~ to the concept ~~which~~ that the term generally has in a drug delivery system (DDS) and high polymer chemistry, it is used for the sake of convenience when referring to the essential "mode" of a heteropolymer system according to the present invention.--

Please amend the paragraph at page 38, line 14, to page 39, line 19, as follows:

--In the present invention, the mode 2) is more preferable from the viewpoint of incorporating at least one phase out of a solid phase, a liquid phase and a gas phase and a magnetic substance in large amounts in a microcapsule. For example, when liquid phases, which include an oil phase and a water phase, are to be included, a

construction in which a water phase and an oil phase coexist in the same capsule may be adopted. Here, "oil phase" and "water phase" correspond to "a substance that has properties of an oil phase" and "a substance that has properties of a water phase", respectively. Typical, but nonlimitative non-limiting, examples of oil phase components that can be used advantageously in the present invention, particularly in holding drugs, include oil phase components that can form an emulsion with water, such as¹ vegetable oils (for example, soybean oil, sesame oil, cottonseed oil, olive oil, safflower oil, corn oil, rapeseed oil, and peanut oil); medium chain fatty acid triglycerides [for example, triglycerides of fatty acids having 6 to 12 carbon atoms (for example, caprylic acid, capric acid, and lauric acid), such as PANASATE 800, 810, 1000, and 1200 manufactured by Nippon Oils And Fat Co., Ltd.]; and liquid hydrocarbons (for example, liquid paraffin, squalene, and squalane). Note that oil phases that can be used when PHA is dissolved in an oil phase to perform ~~microcapsulation~~ the microencapsulation to include the oil phase in the microcapsule include the oil phases that dissolve PHA described ~~hereinbelow~~ below. To form a water phase, aqueous solvents consisting mainly of water can be utilized. Desired substances are dissolved in these phases to make microcapsules having desired functions.--

Please amend the paragraph at page 53, line 15, to page 54, line 13, as follows:

--The PHA used in the present invention is a polyester resin containing 3-hydroxyalkanoate as the monomer unit. Here, when such a compound is produced by

using a microorganism, the polyester resin is an isotactic polymer consisting of an R form only. However, so far as the object of the present invention both in physical properties/function is achieved, the polyester resin is not particularly limited to an isotactic polymer, [[but]] and may be an atactic polymer. PHA may also be obtained by a chemical synthesis method of performing ring opening polymerization of a lactone compound using an organometal organometallic catalyst (for example, an organic catalyst containing aluminum, zinc, tin, or the like).--

Please amend the paragraph at page 70, line 13, to page 80, line 5, as follows:

--For example, microorganisms producing mcl-PHA and unusual-PHA can be used. Examples of such microorganisms that can be used include[[[:]] the above-mentioned ~~Pseudomonas~~ Pseudomonas oleovorans, Pseudomonas resinovorans, Pseudomonas sp. 61-3, Pseudomonas putida KT2442, Pseudomonas aeruginosa and so forth; in addition, those microorganisms belonging to the genus Pseudomonas, such as Pseudomonas putida P91, Pseudomonas ~~chichorii~~ cichorii H45, Pseudomonas ~~chichorii~~ cichorii YN2, and Pseudomonas jessenii P161, isolated by the inventors of the present invention; and microorganisms belonging to the genus Burkholderia, such as Burkholderia sp. OK3 (FERM P-17370) described in Japanese Patent Application Laid-open No. 2001-78753 and Burkholderia sp. OK4 (FERM P-17371) described in Japanese Patent Application Laid-open No. 2001-69968. In addition to those microorganisms,

microorganisms belonging to the genus *Aeromonas* sp. and the genus *Comamonas* sp. that produce mcl-PHA or unusual-PHA can also be used.--

Please amend the paragraph at page 73, lines 4-5, as follows:

--(Mycological Characteristics of *Pseudomonas chichorii* *cichorii* H45 strain)--

Please amend the paragraph at page 74, lines 17-18, as follows:

--(Mycological Characteristics of *Pseudomonas chichorii* *cichorii* YN2 strain)--

Please amend the paragraph at page 89, line 21, as follows:

--<~~Obtention of~~ Obtaining PHA synthetic enzyme>--

Please amend the paragraph at page 216, line 15, to page 217, line 11, as follows:

--The inventors of the present invention have already filed an application regarding a preparation method for a transformant having an ability of ~~producing to produce a~~ PHB synthetic enzyme originated from a TB64 strain, and a specific example thereof will be described here. The TB64 strain was cultured overnight in 100 ml of an LB medium (1% polypeptone, 0.5% yeast extract, 0.5% sodium chloride, pH 7.4) at 30°C. Then, chromosomal DNA was separated and recovered according to a method proposed by

Marmur et al. The obtained chromosomal DNA was partially degraded by a restriction enzyme, Sau3AI. A vector pUC18 was cleaved by a restriction enzyme BamHI, and subjected to dephosphorylation treatment (Molecular Cloning, Vol. 1, p.572, 1989, Cold Spring Harbor Laboratory Press). The cleaved vector was then ligated to a fragment of the chromosomal DNA partially degraded by Sau3AI using a DNA ligation kit Ver. II (available from Takara Shuzo Co., Ltd.). Next, the ligated DNA fragment was used to transform an HB101 strain of ~~Escheichia~~ Escherichia coli, thereby preparing a chromosomal DNA library of the TB64 strain.--

Please amend the paragraph at page 218, lines 12-27, as follows:

--Next, the obtained PCR-amplified fragment was completely degraded using the restriction enzyme BamHI. The resulting product was ligated to an expression vector pTrc99A, which was cleaved by the restriction enzyme BamHI and subjected to the dephosphorylation treatment (Molecular Cloning, Vol.1, p.572, 1989, Cold Spring Harbor Laboratory Press), using a DNA ligation kit Ver. II (available from Takara Shuzo Co., Ltd.). The obtained recombinant plasmid was used to transform ~~Escheichia~~ Escherichia coli HB101 through a calcium chloride method (Takara Shuzo Co., Ltd.), and a recombinant plasmid pTB64-PHB was recovered from the resulting recombinant. ~~Escheichia~~ Escherichia coli HB101 was transformed by the pTB64-PHB through a calcium chloride method, to thereby obtain a pTB64-PHB recombinant strain.--

Please amend the paragraph at page 225, line 23, to page 226, line 16, as follows:

--A YN2 strain was cultured overnight in 100 ml of an LB medium (1% polypeptone (available from Nihon Pharmaceutical Co., Ltd.), 0.5% yeast extract (available from Difco Laboratories), and 0.5% sodium chloride, pH 7.4) at 30°C. Then, chromosomal DNA was separated and recovered according to a method proposed by Marmur et al. The obtained chromosomal DNA was completely degraded by a restriction enzyme, HindIII. A vector pUC18 was cleaved by the restriction enzyme HindIII, and a terminus of the vector was subjected to dephosphorylation treatment (Molecular Cloning, Vol.1, p.572, 1989, Cold Spring Harbor Laboratory Press). A cleaved site (cloning site) of the vector was then ligated to a fragment of the chromosomal DNA completely degraded by HindIII using a DNA ligation kit Ver. II (available from Takara Shuzo Co., Ltd.). Next, a plasmid vector incorporating the ligated chromosomal DNA fragment was used to transform an HB101 strain of ~~Escheichia~~ Escherichia coli, thereby preparing a DNA library of the YN2 strain.--